

REMARKS

Objections to the Specification

The Official Action objects to certain terms used within the specification. For the most part, amendments to the specification have addressed those issues. For example, the Official Action objects to the term "interjacent" (e.g., page 1, line 15). As the term interjacent appears throughout the specification, and in order to expedite examination and minimize amendments, Applicants have amended the specification to indicate that the term "interjacent" has the same meaning as "intermediate." This is consistent with the plain usage of the term within the specification, as for example, where the specification describes the interjacent layer as being layer number 11 of Figure 1, which is intermediate between layers 12 and 13. See, e.g, specification at page 5, lines 22-24 and Figure 1. Accordingly, and in keeping in line with the axiom that a patentee is entitled to be his own lexicographer, it is respectfully submitted that the use of the term "interjacent" is clear within the context of the specification and has now been specifically defined in such a way that one of ordinary skill in the art would plainly understand its intended meaning.

The Official Action also objects to the first recitation of the abbreviation HDPE. The specification has now been amended to clearly indicate that HDPE stands for High Density Polyethylene as plainly stated at page 4, lines 3 through 4.

The Official Action also objects to the use of the term "UHT" milk. It is respectfully submitted that the term is amply defined immediately following the first recitation of the term, and that the meaning would be clear to one of ordinary skill in the art.

The Official Action also objects to the abbreviation ASTM. It is respectfully submitted that one of ordinary skill in the art would recognize ASTM as the abbreviation for American Society for Testing and Materials. See, e.g., www.astm.org. ASTM is a well known testing and standard setting organization, and so the recitation of the organization itself does not add new matter.

Section 112 Rejections

It is respectfully submitted that the amendments to the claims adequately address the Section 112 rejections and render them moot. Likewise, it is submitted that the amendments to the claims to overcome the Section 112 rejections do not introduce any new matter.

Claims 5 and 6 have also been rejected under Section 112 as improperly containing the term "interjacent." However, as discussed above, the term interjacent has now been defined within the specification consistent with its use within the specification so as to make the meaning of the term clear without the addition of new matter. In the interest of expediting examination and eliminating potential issues, Applicants have nonetheless amended claims 5 and 6 to delete the term "interjacent" and substitute the term "intermediate" consistent with the amendment to the specification above.

Claim Rejections Under Section 103

It is respectfully submitted that the amendments to the claims place the claims in condition for allowance, and that the claims now more particularly recite and distinctly claim the subject matter Applicants regard as their invention and so as to distinguish over the prior art.

The Office Action rejects claims 1 and 2 under Section 103(a) as unpatentable over Akao et al. ('741). The Official Action asserts that the Akao reference teaches a packaging material with at least one light shielding layer. The Official Action acknowledges, however, that the light shielding layer described by Akao is not described as one containing both carbon black and another mineral component. Further, the Official Action identifies nothing within Akao which suggests combining more than one of the potential light shielding materials as an effective means for constructing the packaging material described therein. Accordingly, the Official Action does not make a *prima facie* case of obviousness.

The foregoing amendments to the pending claims incorporate a limitation wherein the quantity of carbon black within the intermediate layer is about 0.04% to about 1% of the total weight of the intermediate layer. This is consistent with the statements within the specification asserting that the present invention provides a synergistic combination of materials such that a dramatically reduced quantity of carbon black is necessary in order to achieve the light shielding properties of the layers of the present invention. See, e.g., page 3, lines 9-20; page 4, lines 22-30; and page 6, lines 18-23. In contrast, the cited portion of the Akao reference describes the fabrication of a packaging material comprising 5 weight percent of furnace carbon black. See, e.g., column 46, line 25. It is respectfully submitted that there is nothing identified within the Akao reference that teaches or suggests that the light shielding properties desired for a foodstuff packaging material can be achieved at such low levels of carbon black. Accordingly, the claimed invention is neither taught nor suggested by any of the cited portions of Akao.

Each of the remaining rejections depend upon the same arguments and assertions of obviousness of the claimed invention over Akao. In view of the foregoing comments, and in light of the amendment to the claims, it is respectfully submitted that the allegation of obviousness of claims 1 and 2 over Akao no longer satisfies the requirements of a *prima facie* case of obviousness. Accordingly, Akao cannot be relied upon for the same purposes in the ensuing rejections. Accordingly, the ensuing rejections are likewise overcome. Reconsideration and withdrawal of all outstanding rejections is respectfully requested.

In view of the foregoing amendments and remarks, Applicants submit that the pending claims are in condition for allowance. If, however, the Examiner perceives any impediments to the issuance of a formal notification of allowance, the Examiner is encouraged to call Applicants representative at the number provided below. It is respectfully submitted that such informal communication will expedite examination and disposition of the present case.

Respectfully submitted,

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Date: August 8, 2002

Attachment to Reply and Amendment dated July 23, 2002

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Please amend the specification as follows:

At the end of the specification, on a separate page at page 11, please add the following:

--ABSTRACT

The present invention provides a packaging material of single multi-layer type including at least one layer of plastic having improved light barrier properties, and which layer of plastic includes particles of carbon black and wherein the plastic layer containing the carbon black further includes mineral particles substantially uniformly distributed within the plastic material of that layer in a quantity between about 3 % and 80 % of the total weight of the layer. The packaging materials have superior light barrier properties over similar materials in the art, and can be used to enhance the packaging and storage of light-sensitive food products.--

Replace the paragraph at page 1, line 12, with the following paragraph:

Both packaging material and packages of the type described above are known in the art. For example, there occur on the market bottles which are produced by a combined extrusion/blow moulding operation of such triple-layer material. The material in these bottles has an interjacent or intermediate layer of [HDPE] High Density Polyethylene (HDPE) with admixed particles of carbon black and outer layers of HDPE on both sides of the interjacent layer.

Attachment to Reply and Amendment dated July 23, 2002

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Replace the paragraph at page 1, line 18, with the following paragraph:

The prior art bottles are employed, [int. al.] inter alia for transporting so-called UHT milk, i.e. milk which, for the purpose of extending its shelf life, has been subjected to a heat treatment at [approx.] approximately 135-150°C during [approx.] approximately 1-2 seconds for reducing or eliminating the number of harmful micro-organisms occurring in the milk.

Replace the paragraph at page 4, line 3, with the following paragraph:

Examples of such polyolefin plastics are polyethylene, such as high density polyethylene (HDPE), and polypropylene (PP) of both homo- and copolymer type, such as a copolymer of ethylene and propylene with a melt index between 0.5 and 5 according to [ASTM] American Society for Testing and Materials (ASTM) (2.16 kg; 230°C) which is an already well-known and well-established copolymer in packaging contexts.

Attachment to Reply and Amendment dated July 23, 2002

Marked-up Claims 1-3 and 5-6

1. (Amended) A packaging material of single or multi-layer type [including] comprising at least one layer (11) of plastic which, for light barrier elevating purposes, [includes] comprises particles (11c) of carbon black, in an amount ranging from about 0.04 to about 1% of the total weight of the plastic layer (11) [**characterized in that**] wherein the layer (11) containing carbon black also includes mineral particles (11b) substantially uniformly distributed in the compound (11a) of the layer[. In] in a quantity between [approx.] approximately 3 and 80% of the total weight of the plastic layer (11).

2. (Amended) The packaging material as claimed in Claim 1, characterized in that the compound (11a) in the mineral-filled layer (11) containing carbon black [consists of] comprises a [plastic of] polyolefin [type].

3. (Amended) The packaging material as claimed in Claim 1, **characterized in that** the compound (11a) in the mineral-filled layer (11) containing carbon black consists of a high density polyethylene or a copolymer of ethylene and propylene with a melt index between 0.5 and 5 according to [ASTM] American Society for Testing and Materials (2.16 kg; 230°C).

5. (Amended) The packaging material as claimed in Claim 1, **characterized in that** the mineral-filled layer (11) containing carbon black is surrounded by outer layers (12 and 13) of plastic on both sides of the layer (11), said outer layers (12 and 13) being permanently united to the layer (11) without [interjacent] intermediate binder or adhesive.

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Marked-up Claims 1-3 and 5-6

6. (Amended) The packaging material as claimed in Claim 5, **characterized in**
that the two outer layers (12 and 13) consist of the same plastic as the plastic in the
[interjacent] intermediate layer (11).